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(54) **Medical gas mixtures**

(57) A medical gas mixture for use in the imaging and/or treatment of tumours in patients inhaling the mixture: the mixture comprising for 20 to 70% oxygen, from

1 - 8% carbon dioxide, the balance, except for incidental constituents not adversely affecting the basic prospectives of the gas mixtures, being helium.

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3%, surprisingly do not decrease the vasodilation effects of this constituent, nor adversely affect the overall effectiveness of the imaging or patients inhaling the gas mixture, to an extent which would be expected for such low levels of carbon dioxide.

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In addition the experiments confirm the fact that the gas mixture of the invention is more readily and comfortably inhaled than an equivalent helium-free mixture.

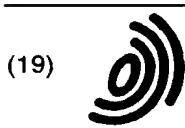
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Claims

1. A medical gas mixture for use in the imaging and/or treatment of tumours in patients inhaling the mixture, the mixture comprising for 20 to 70% oxygen, from 1 - 8% carbon dioxide, the balance, except for incidental constituents not adversely affecting the basic prospectives of the gas mixtures, being helium.
2. A medical gas mixture according to Claim 1 in that the oxygen content is from 20 to 40%.
3. A medical gas mixture according Claim 1 or Claim 2 in which the oxygen content is from 25 to 35%.
4. A medical gas mixture according to any preceding claim in which the carbon dioxide content is from 1 to 5%.
5. A medical gas mixture according to any preceding claim in which the carbon dioxide content is from 1 to 4%.
6. A medical gas mixture according to any preceding claim in which the carbon dioxide is less than 3%.
7. A medical gas mixture according to any preceding claim containing 25 to 35% oxygen, 1 to 3% carbon dioxide and the balance being helium.
8. A medical gas mixture according to any preceding claim containing 30% oxygen, 2% carbon dioxide and 68% helium.
9. The use of a gas mixture according to any preceding claim in the preparation of inhalable substances in the imaging and/or treatment of tumours in patients.

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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The members are as contained in the European Patent Office EDP file on
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